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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,208	08/16/2001	Osamu Itou	H6810.0028/P028	9208

24998 7590 07/23/2004

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EXAMINER

SEFER, AHMED N

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,208

Applicant(s)

ITOU ET AL.

Examiner

A. Sefer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 5,7-24,26,27,32,34-51,53 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed May 13, 2004 has been entered and claim 3, 6, 25, 30, 31, 33 and 52 have been cancelled.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. ("Okamoto") US PG-Pub 2002/0063826.

Okamoto discloses (see fig. 13, pars. 0161-0162 and par. 0177 and abstract) a liquid crystal display device having a normally closed display mode and being a reflection type device comprising: an upper substrate 34 and a lower substrate 33 disposed in a mutually facing relation; a liquid crystal layer 20 sandwiched between said upper substrate and said lower substrate having a twist angle which falls within the range recited in the claim; a light diffusive reflective electrode 36 having recesses and projections provided on said lower substrate; a phase plate 28 provided on an outer surface of said upper substrate; a polarizing plate 29 provided on an outer surface of said phase plate, but does not disclose product of a height of said recesses and projections times said birefringence. However, one of ordinary skill in the art would find it obvious to modify Okamoto's device since it has been held that where the general conditions of a

claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

As for claim 4, Okamoto discloses (see par. 0039) phase plate having a slow axis azimuth which falls within the range recited in the claim.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto in view of Terashita et al. ("Terashita") US PG-Pub 2003/0058393.

Okomoto discloses (par. 0249 and abstract) the device structure as recited in the claim including a phase retardation value and a liquid crystal retardation value, but does not disclose an absorption axis.

Terashita discloses (pars. 0028-0031, 0100, par. 0273 and 0291) a liquid crystal display device having a normally closed display mode comprising a phase retardation value, a liquid crystal retardation value and a polarizing plate having an absorption axis value which fall within the range recited in the claim.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate Terashita's teachings since that would provide a wide viewing angle as taught by Terashita.

5. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. ("Okamoto") US PG-Pub 2002/0063826.

Okamoto discloses (see fig. 13, pars. 0161-0162 and par. 0177 and abstract) a method of fabricating a liquid crystal display device having a normally closed display mode and being a reflection type, said method comprising the steps of: providing an upper substrate 34 and a lower substrate 33 disposed in a mutually facing relation; providing a liquid crystal layer 20

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sandwiched between said upper substrate and said lower substrate having a twist angle which falls within the range recited in the claim; providing a light diffusive reflective electrode 36 having recesses and projections provided on said lower substrate; providing a phase plate 28 provided on an outer surface of said upper substrate; providing a polarizing plate 29 provided on an outer surface of said phase plate, but does not disclose product of a height of said recesses and projections times said birefringence. However, one of ordinary skill in the art would find it obvious to modify Okamoto's device since it has held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto in view of Terashita.

Okomoto discloses (par. 0249 and abstract) the a method of fabricating a device as recited in the claim including a phase retardation value and a liquid crystal retardation value, but does not disclose an absorption axis.

Terashita discloses (pars. 0028-0031, 0100, par. 0273 and 0291) a liquid crystal display device having a normally closed display mode comprising a phase retardation value, a liquid crystal retardation value and a polarizing plate having an absorption axis value which fall within the range recited in the claim.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate Terashita's teachings since that would provide a wide viewing angle as taught by Terashita.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (571) 272-1921.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANS
July 19, 2004



NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800